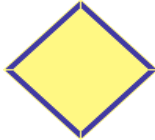


SPARTA

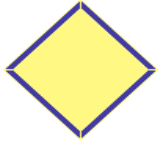
IOF Update

Jim Ott and Dave Crow
Triangle Systems, Inc.
November 6, 2018



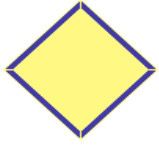
Topics

- **Major changes for IOF 8G**
- **Brief review of IOF R&D approach**
- **New function in IOF 8G**



Major Changes for 8G

- **8 Byte UserIDs**
- **General Improvements to IOF HELP**
- **New Quick Reference Command (QRF)**



8G Changes (8 Byte UserIDs)

- **Historical perspective**
- **Owner in JQE**
- **ISPF stats**
- **Control block isolation**
- **Still a Royal Pain**

8G Changes (HELP Improvements)

- **Improved HELP content**
- **Action area for menu selections**
- **Browse all menu topics as a single file**

8G Change (Browse Help Info)

```
----- Job List Menu Help -----  
COMMAND ==> br_  
  
The IOF Job List Menu displays all types of jobs. Each basic type of job is  
displayed in a different section which has a unique format most appropriate  
to that type of job.  
  
Jobs can be selected, cancelled, released, and modified directly from the  
Job List Menu by simple commands. The list of jobs can also be searched,  
sorted, and manipulated by commands.  
  
- 1 Summary of line commands  
- 2 Summary of primary commands  
- 3 Format of IOF Job List Menu  
- 4 Menu of detailed command descriptions  
  
Active filter and sort values  
PREFIX:  
SCOPE:  
DEST:  
SYSNAME:  
SORT: AGE D
```

8G Change (Browse Help Info)

```
Browsing IOF HELP      Page 1      Line 2      Cols 1-80
COMMAND ==> find exclude word_ SCROLL ==> CURSOR
----- Job List Menu Help -----

The IOF Job List Menu displays all types of jobs.  Each basic type of job is
displayed in a different section which has a unique format most appropriate
to that type of job.

Jobs can be selected, cancelled, released, and modified directly from the
Job List Menu by simple commands.  The list of jobs can also be searched,
sorted, and manipulated by commands.

1  Summary of line commands
2  Summary of primary commands
3  Format of IOF Job List Menu
4  Menu of detailed command descriptions

Active filter and sort values
PREFIX:
SCOPE:
DEST:
SYSNAME:
SORT: AGE D
```

8G Change (Browse Help Info)

```
Browsing IOF HELP                      Page 2      Line 22      Cols 1-80
COMMAND ==>                          SCROLL ==> CURSOR
  V      View the job from a previously saved index data set
  X      Exclude the job from the menu
  AT     Start a server session on another system
  HDR    Add a block header to the target snap data set
  SJ     Start Input Job immediately; (Execute now)
  SEND   Send job output as an attachment to email
  ARChive Archive the job to a z/OS data set
```


8G Change (Browse Help Info)

```
Browsing IOF HELP                      Page 7      Line 8      Cols 1-80
COMMAND ==>                          SCROLL ==> CURSOR

----- EXCLude, UNEX - Exclude or unexclude jobs from display -----

Jobs can be excluded from the Job List Menu based on specific values in any
field that appears on the menu. Exclude command syntax is:
  EXCLude fieldname operator value

Field names are identical to the field headings where possible. HELP lists
all field names in the section Format of IOF Job List Menu . Operators are
EQ, NE, LT, GT, BG (begins), CT (contains) and NC (not containing). The
full list of jobs is restored if no operands are specified. A blank value is
designated by not specifying a value field.

Excluded jobs can be restored to the display with the UNEXCL command.  Parms
are identical to the EXCL parms.

Examples:
  EXCLUDE JOBNAME EQ TEST                (Keep only TSU and STC)
  EXCL JOBID BG J                        (Keep only input jobs)
  EXCL SECTION NE INPUT                  (Restore STC jobs to display)
  UNEXCL JOBID BG S
```

8G Changes (QRF Command)

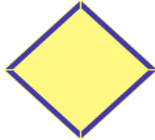
- Replaces Quick Reference Card
- Top down info from any IOF Screen
- Dynamically adapts to options and permissions
- Drills down to improved detail HELP

```
----- Job List Menu Help -----  
COMMAND ==> QRF_  
  
The IOF Job List Menu displays all types of jobs. Each basic type of job is  
displayed in a different section which has a unique format most appropriate  
to that type of job.  
  
Jobs can be selected, cancelled, released, and modified directly from the  
Job List Menu by single commands. The list of jobs can also be searched
```

8G Changes (QRF Command)

```
----- IOF Quick Reference HELP -----
COMMAND ==>
      Command(s)      Description
-----
  1      ...      General Aids in Using IOF
  2      I/IOF      Invoking IOF under ISPF
  3      ...      IOF Option Menu
  4      J/I/R/O      Jobs
  5      G/H      Output Groups
  6      ...      IOF browse
  7      PR/PU/...      Devices: Printers/Punches/NJE/RJE/Lines/Offloaders
  8      M/DA      System Monitor (Address spaces)
  9      LOG      Daily System Log (SYSLOG or OPERLOG)
 10      CN      Personal MCS Console
 11      #/$      MVS and JES2 Commands
 12      INIT      Initiators
 13      MAS/AT      Display MAS systems / Start IOF server session
 14      WLM/ENC      Workload manager and Enclaves
 15      SPV/NOD      Spool Volumes and Nodes
 16      JBC/SR      Job Classes and Pending Operator Messages
 17      PS/APPC      Unix Processes and APPC transactions

Press DOWN to see more Quick Reference Topics
```



8G Changes (QRF Command)

```
----- Creating and Managing Job Lists -----  
COMMAND ==> _  
  
_ 1 Selecting a list of jobs  
_ 2 Line commands for job lists  
_ 3 Primary commands for job lists  
_ 4 Complete HELP for managing a list of jobs  
  
Enter the BR command to browse these topics as a document.
```

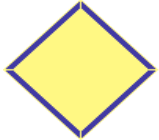
8G Changes (QRF Command)

END (PF3) then DOWN (PF8) gives

```
----- More Quick Reference Topics -----
COMMAND ==> _

      Command(s)      Description
-----
- 1      P            Set IOF profile options
- 2      ZDS          Browse, Print, Copy, or Email z/OS Data Sets
- 3      ZF           Scan a PDS - More info with less effort
- 4      ARC          Simple archival and review of jobs in IOF format
- 5      SS/SD/SU     Snap data to target data sets
- 6      OPER         Scan any retained OPERLOG data
- 7      CHK/CK       Health Checker
- 8      TSO/TS       Invoking TSO commands under IOF
- 9      %            Coding IOF Rexx execs and CLISTs
- 10     DVAR         Display user and session attributes
- 11     IOF          Invoking IOF from TSO READY
- 12     JM           JES2 Information
- 13     ...          Helpful IOF commands

Press UP to see previous Quick Reference Topics
```



Triangle R & D

- **Functionality Versus Simplicity**
- **Win-Win Examples**
- **Software Sculpting**
- **Evolution of ZF Command**

Win-Win (Job Summary)

```
----- IOF Job Summary -----
COMMAND ==>
--JOBNAME--JOBID--STATUS--RAN/RECEIVED--DAY--DEST--
CONTROL J825311 OUTPUT 12:11 3/29/2018 THURSDAY FETCH
--RC--PGM--STEP--PRSTEP--PROC--COMMENTS--
 4 ASMA90 C IOFASM
 0 IEBCOPY COMPRESS
-----
--DDNAME--STEP--PRSTEP--STAT--ACT--C--GRP--D--SIZE--U--DEST--
- 1 LOG * HELD H 1 H 20 L FETCH
- 2 JCL * HELD H 1 H 43 L FETCH
- 3 MESSAGES * HELD H 1 H 86 L FETCH
- 4 SYSPRINT C HELD H 1 H 17K L FETCH
- 5 SYSTEM C HELD H 1 H 19 L FETCH
- 6 SYSPRINT COMPRESS A 2 W 20 L FETCH
```

Win-Win (Emailing jobs)

```
----- Send Job Output -----
COMMAND ==>

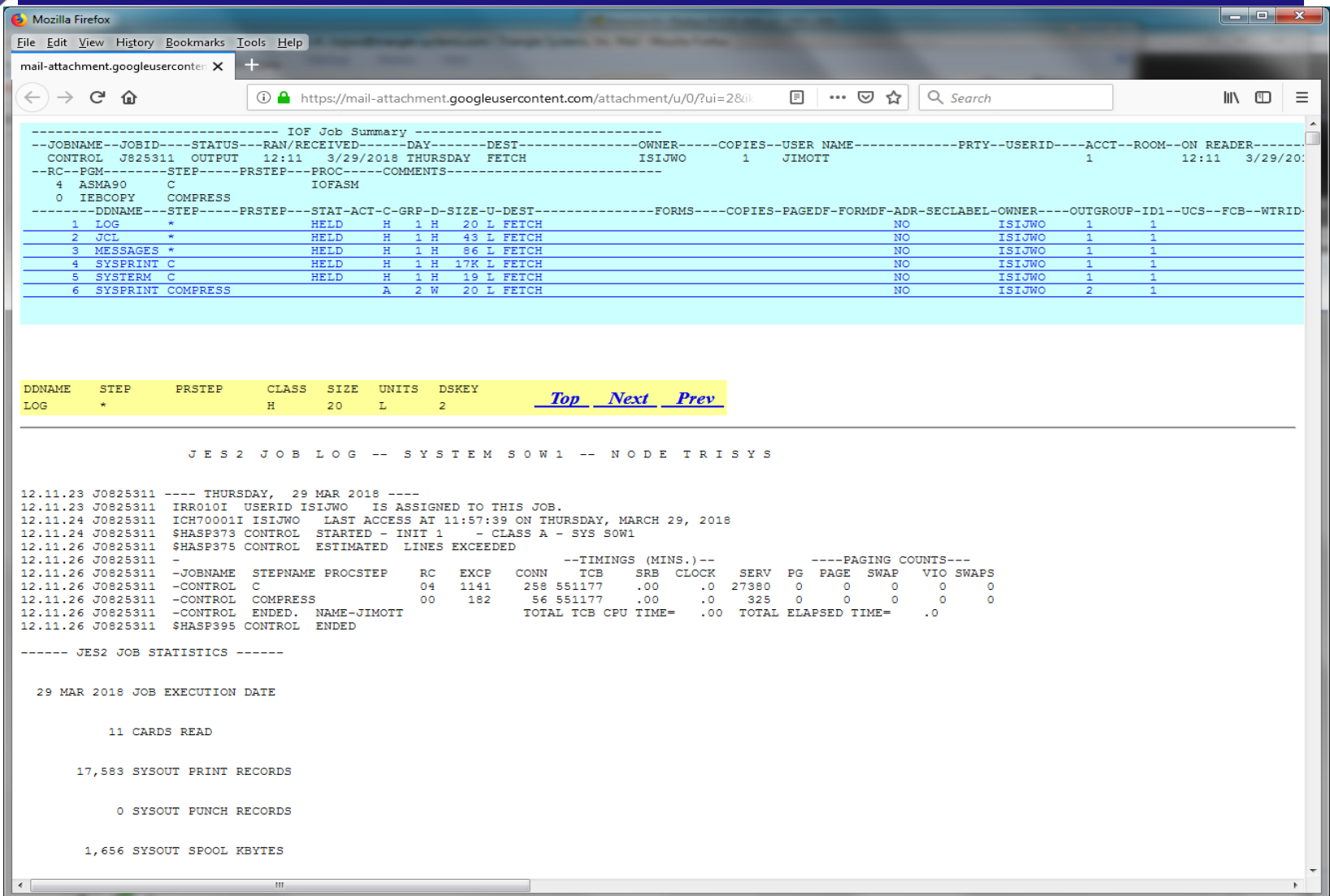
NOPROMPT - Don't prompt again during this IOF session
HELP     - Display complete description of the IOF SEND facilities

      To ==> jim.ott@triangle-systems.com
      CC ==>
      BCC ==>
      From ==>

PC file name for attachment:
File Name ==> JOB.CONTROL_.J825311.2018-03-29@12.11.ALL.html

Data      ==> ALL          ALL    -> All sysouts in job/group
                        JESDS -> Just system sysouts
                        NONE  -> Just Job Summary with no sysouts
Summary   ==> YES         YES    -> Include Job Summary (format = html)
                        NO     -> No Job Summary      (format = txt)
Format    ==> html        Data format for attachment
Carriage  ==> HTML        ASCII/ASA/NONE (map ASA/MCH CC for text attachments)
                        HTML/NONE   (map ASA/MCH CC for html attachments)
```


Win-Win (Emailing jobs)



----- IOF Job Summary -----

JOBNAME	JOBID	STATUS	RAN/RECEIVED	DAY	DEST	OWNER	COPIES	USER NAME	PRTY	USERID	ACCT	ROOM	ON READER
CONTROL	J0825311	OUTPUT	12:11	3/29/2018	THURSDAY	FETCH	1	JIMOTT			1		12:11 3/29/2018

----- DDNAME, STEP, PRSTEP, STAT, ACT, C, GRP, D, SIZE, U, DEST, FORMS, COPIES, PAGEDF, FORMDF, ADR, SECLABEL, OWNER, OUTGROUP, ID1, UCS, FCB, WTRID -----

DDNAME	STEP	PRSTEP	STAT	ACT	C	GRP	D	SIZE	U	DEST	FORMS	COPIES	PAGEDF	FORMDF	ADR	SECLABEL	OWNER	OUTGROUP	ID1	UCS	FCB	WTRID
LOG	*		HELD	H	1	H		20	L	FETCH	NO	1					ISIJWO	1				1
JCL	*		HELD	H	1	H		43	L	FETCH	NO	1					ISIJWO	1				1
MESSAGES	*		HELD	H	1	H		86	L	FETCH	NO	1					ISIJWO	1				1
SYSPRINT	C		HELD	H	1	H		17K	L	FETCH	NO	1					ISIJWO	1				1
SYSTEM	C		HELD	H	1	H		19	L	FETCH	NO	1					ISIJWO	1				1
SYSPRINT	COMPRESS			A	2	W		20	L	FETCH	NO	2					ISIJWO	2				1

----- DDNAME, STEP, PRSTEP, CLASS, SIZE, UNITS, DSKEY -----

DDNAME	STEP	PRSTEP	CLASS	SIZE	UNITS	DSKEY
LOG	*		H	20	L	2

[Top](#) [Next](#) [Prev](#)

JES2 JOB LOG -- SYSTEM SOW1 -- NODE TRISYS

12.11.23 J0825311 ---- THURSDAY, 29 MAR 2018 ----

12.11.23 J0825311 IRR0101 USERID ISIJWO IS ASSIGNED TO THIS JOB.

12.11.24 J0825311 ICH700011 ISIJWO LAST ACCESS AT 11:57:39 ON THURSDAY, MARCH 29, 2018

12.11.24 J0825311 \$HASP373 CONTROL STARTED - INIT 1 - CLASS A - SYS SOW1

12.11.26 J0825311 \$HASP375 CONTROL ESTIMATED LINES EXCEEDED

12.11.26 J0825311 -

12.11.26 J0825311 -JOBNAME STEPNAME PROCSTEP RC EXCP CONN TCB SRB CLOCK SERV PG PAGE SWAP VIO SWAPS

12.11.26 J0825311 -CONTROL C 04 1141 258 551177 .00 .0 27380 0 0 0 0 0

12.11.26 J0825311 -CONTROL COMPRESS 00 182 56 551177 .00 .0 325 0 0 0 0 0

12.11.26 J0825311 -CONTROL ENDED. NAME-JIMOTT TOTAL TCB CPU TIME= .00 TOTAL ELAPSED TIME= .0

12.11.26 J0825311 \$HASP395 CONTROL ENDED

----- JES2 JOB STATISTICS -----

29 MAR 2018 JOB EXECUTION DATE

11 CARDS READ

17,583 SYSOUT PRINT RECORDS

0 SYSOUT PUNCH RECORDS

1,656 SYSOUT SPOOL KBYTES

Win-Win (Archiving jobs)

```
----- Archive Job "CONTROL" to a z/OS Data Set -----
COMMAND ===>

      HELP - Display information about IOF archival

Prefix  ===>  ISIJWO          Prefix for archive data set name
Catg.   ===>  -              Category for this job (prefix extension)
Suffix  ===>  IOFJOB         Suffix for archive data set name
                               (prefix,suffix,catg <= 25 characters)

Disp    ===>                Disposition after OK archive (CANCEL/RELEASE,...)
Sysouts ===>  ALL           Include these sysouts (ALL/JESDS)
Terse   ===>  NO            Yes -> Create compressed data set with IBM TERSE
Done    ===>  NO            Yes -> Try and include sysouts marked as "DONE"
CC       ===>  ASA          Carriage control (ASA/MACHINE/NONE)

Allocation attributes for archive data set

UNIT      ===>                VOLUME   ===>
STORCLAS  ===>                MGMTCLAS ===>                DATACLAS ===>
```

Win-Win (Archiving jobs)

```
-----Archived Job Summary-----
COMMAND ===> -                               SCROLL===> CSR
----- IOF Job Summary -----
--JOBNAME--JOBID--STATUS--RAN/RECEIVED--DAY--DEST--OWN--
CONTROL  J825311  OUTPUT   12:11    3/29/2018 THURSDAY  FETCH  ISI
--RC--PGM-----STEP-----PRSTEP--PROC-----COMMENTS-----
  4  ASMA90      C
  0  IEBCOPY     COMPRESS
  IOFASM
-----DDNAME--STEP-----PRSTEP--STAT-ACT-C-GRP-D-SIZE-U-DEST-----F
-   1  LOG       *          HELD      H   1  H   20  L  FETCH
-   2  JCL       *          HELD      H   1  H   43  L  FETCH
-   3  MESSAGES  *          HELD      H   1  H   86  L  FETCH
-   4  SYSPRINT  C          HELD      H   1  H  17K  L  FETCH
-   5  SYSTEM    C          HELD      H   1  H   19  L  FETCH
-   6  SYSPRINT  COMPRESS    A   2  W   20  L  FETCH
```

Win-Win (ZF Command)

```
Menu  Utilities  Compilers  Options  Status  Help
-----
ISPF Primary Option Menu
Option ==> zf asa 25 60 word
More:      +

0  Settings      Terminal and user parameters      User ID . : ISIDSC
1  View          Display source data or listings    Time. . . : 12:40
2  Edit          Create or change source data       Terminal. : 3278
3  Utilities      Perform utility functions          Screen. . : 1
4  Foreground     Interactive language processing     Language. : ENGLISH
5  Batch          Submit job for language processing   Appl ID . : ISR
6  Command        Enter TSO or Workstation commands    TSO logon : TSIPROC
7  Dialog Test     Perform dialog testing              TSO prefix: ISIDSC
8  LM Facility     Library administrator functions     System ID : S0W1
9  IBM Products    IBM program development products     MVS acct. : GROUP2
10 SCLM           SW Configuration Library Manager     Release . : ISPF 6.0
11 Workplace      ISPF Object/Action Workplace

----- Other Install Products -----

I IOF            The better of the two, by God!
AR Job Archive    Display archive jobs
SD SDSF           System Display and Search Facility
IP IPCS           Inter Problem Control Facility
```

Win-Win (ZF Command)

```
----- Scan Libraries using IOF ZF -----
COMMAND ==>
Any parms valid on a FIND ALL command:
  Find All ==> ASA 25 60 WORD
Library name (or select library from list below):
  Library ==>

S - Scan one or more libraries from the list below
C - Copy library name to prompt field (modify name to scan new library)
D - Remove library from list

----- Action-----Previously Searched Libraries-----
S- 1 IOF.IOFT8GJ.CLIST
- 2 IOF.IOFT8GJ.HELP
- 3 IOF.IOFT8GJ.INSTALL
- 4 IOF.IOFT8GJ.SOURCE
- 5
- 6
- 7
- 8
- 9
- 10
```

Win-Win (ZF Command)

```
----- Scanning PDS: IOF.IOFT8GJ.CLIST -----
COMMAND ==>                                SCROLL ==> CURSOR

      S - IOF Browse      V - ISPF View      E - ISPF Edit
      Find - Member name or text      Next - Next unique member

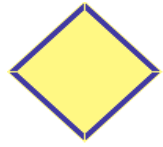
-----Member---Act-Record Text-----
- 1 IOFMAIL2      if wordpos(ctl,'NONE ASCII ASA') 0 then return 0      ...
- 2 "             'Carriage parm must specify NONE/ASCII/ASA'      ...
- 3 "             when wordpos(convfmt,'HTML ASCII ASA') 0 then      ...
- 4 "             when pos('A',xx_recfm) 0 then xx_cc = 'ASA'      ...
V 5 IOFSEND       if parm = "A" then parm = "ASA"      /**/      ...
- 6 IOFSSPMT      SS_cc = 'A'      /* ASA is the defau...
```

Win-Win (ZF Command)

```
File Edit Edit_Settings Menu Utilities Compilers Test Help
VIEW      IOF.IOFT8GJ.CLIST(IOFSEND) - 01.02      Columns 00001 00072
Command ==> Scroll ==> CSR
001550 if parm = "A" then parm = "ASA"      /**/
001551
001552 if wordpos(parm,'ASA NONE HTML ASCII') >0 then return 1
001553
001554 call parm_error 'Carriage/',
001555 'Invalid CARRIAGE/CC parm (source:'parm_source'):' parm
001556
001557 return 0
001558
001559 /*
001560 */
001561 */
001562 valid_ff:
001563
001564 parse arg parm
001565
001566 parm = translate(parm)
001567 parm = strip(parm)
001568
001569 if parm = '' then return 0      /*
001570 */
001571
001572 if parm = 'ASCII' then return 1      /**/
001573
001574 if length(parm) = 1 & datatype(parm) = "NUM" then return 1
001575
001576 if length(parm) = 2 then return 1      /**/
001577
001578 call parm_error 'Form Feed/',
001579 'Invalid form feed parm (source:'parm_source'):' parm
001580
001581 return 0
001582
001583 /*
001584 */
001585 */
001586 valid_data:
001587
001588 parse arg parm
```

Win-Win (ZF Command)

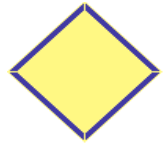
```
Menu Options View Utilities Compilers Help
DSLIST - Data Sets Matching IOF.IOFT8GJ.*                      Row 1 of 12
Command ===>                                         Scroll ===> CSR
Command - Enter "/" to select action                      Message                      Volume
-----
      IOF.IOFT8GJ.CLIST                                     VPMVSE
zf asa 25 60 word GJ.HELP                                 VPMVSE
      IOF.IOFT8GJ.INSTALL                                  VPMVSE
      IOF.IOFT8GJ.ISPMLIB                                  VPMVSE
      IOF.IOFT8GJ.ISPPLIB                                  VPMVSE
      IOF.IOFT8GJ.ISPTLIB                                  VPMVSE
      IOF.IOFT8GJ.LOAD                                     VPMVSE
      IOF.IOFT8GJ.OBJ                                     VPMVSE
      IOF.IOFT8GJ.OPTIONS                                  VPMVSE
      IOF.IOFT8GJ.SAMPMOD                                  VPMVSE
      IOF.IOFT8GJ.SOURCE                                   VPMVSE
      IOF.IOFT8GJ.UPDATES                                  VPMVSE
***** End of Data Set list *****
```

Triangle Software Sculpting

- **New Idea**
- **Prototype**
- **First Implementation**
- **Incoming!**
- **Major Changes**
- **Refinement**
- **Small Independent Pieces**
- **Secondary Functionality**

Software Sculpting (ZF Evolution)



```
-----Archived Job Summary-----
COMMAND ==>
SCROLL==> CSR

-----IOF Job Summary-----
JOBNAME--JOBID--STATUS--RAN/RECEIVED--DAY--DEST--OWN
CONTROL  J825311  OUTPUT  12:11    3/29/2018 THURSDAY  FETCH  ISI
--RC--PGM--STEP--PRSTEP--PROC--COMMENTS-----
  4  ASMA90      C              IOFASM
  0  IEBCOPY     COMPRESS

--DDNAME--STEP--PRSTEP--STAT--ACT--C--GRP--D--SIZE--U--DEST--F
-   1  LOG       *              HELD    H    1  H    20  L  FETCH
-   2  JCL       *              HELD    H    1  H    43  L  FETCH
-   3  MESSAGES  *              HELD    H    1  H    86  L  FETCH
S-  4  SYSPRINT  C              HELD    H    1  H   17K  L  FETCH
-   5  SYSTEM    C              HELD    H    1  H    19  L  FETCH
-   6  SYSPRINT  COMPRESS      A    2  W    20  L  FETCH
```

Software Sculpting (ZF Evolution)

```
BROWSE - SYSPRINT          C          - Page 1          Line 1          Cols 1-80
COMMAND ==> -              SCROLL ==> CURSOR
***** Top of Data *****
High Level Assembler Option Summary

No Overriding ASMAOPT Parameters
Overriding Parameters- DECK,NOOBJ,ASA,SZ(MAX,ABOVE),TERM,XREF(SHORT),US(MAP,W
No Process Statements

Options for this Assembly

NOADATA
  ALIGN
3  ASA
  BATCH
  CODEPAGE(047C)
NOCOMPAT
NODBCS
3  DECK
  DXREF
  ESD
NOEXIT
  FLAG(0,ALIGN,CONT,EXLITW,NOIMPLEN,NOPAGE0,PUSH,RECORD,NOSUBSTR,USING0)
NOFOLD
NOGOFF
NOINFO
  LANGUAGE(EN)
NOLIBMAC
  LINECOUNT(60)
  LIST(121)
  MACHINE(,NOLIST)
  MXREF(SOURCE)
3 NOOBJECT
  OPTABLE(UNI,NOLIST)
NOPCONTROL
NOPESTOP
NOPROFILE
NORA2
3  RENT
```

Software Sculpting (ZF Evolution)

```
DSN: IOF.IOFTAGJ.HELP($#BROWZE) Record 1 Columns 1-80
COMMAND ==> find all asa 25 60 word SCROLL ==> CURSOR
***** Top of Data *****

<IOF Browse>is very similiar to ISPF browse. Because of the type data
being browsed, IOF browse has several enhancements.

<Sysout data is print oriented> and contains<printer control information,>
such as skip to top-of-form. IOF browse makes use of printer control
information to<display data as it would appear on the printed page.>
IOF honors page breaks and supports page scrolling.

The IOF<FIND>command has two additional features not available in ISPF
browse. The<FINDLIM>sub-command restricts the amount of data scanned.
The<ALL>sub-command produces the IOF<FINDALL>panel which displays each
occurrence of the string.

IOF browse can<copy>all or parts of sysout data sets to any non-VSAM
output data set. Special panels are available to assist in defining
external target data sets.

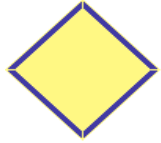
IOF browse<index>facilities allow building and displaying indices
to the sysout data. Indices speed and simplify browsing sysout data.
% BRCONT004 1
Press<ENTER>for more detailed information, or<END>to return to browse.
==BRCONT

IOF<Browse> main help menu.

% MA2SCR004 1 1 Scrolling<up, down, left,>and<right.>
% MA2POS004 2 2 <Position> directly to a<line>or<page.>
% MAJFND004 3 3 <Find>a character string in the data set.
% MAJOPT004 4 4 Set miscellaneous Browse<options.>
% MAJSNP004 5 5 <Snap>data to an external data set.
% MAJDSN004 6 6 <Select>another sysout<data set>for Browse.
% MAJLOC004 7 7 Define and<locate>labels in the data set.
% MAJNDX004 8 8 Displaying a browse<index.>
% MAJLST004 9 9 <List>sysout data at the terminal.
% MA2OUT004 10 10 <Terminating>browse

Select a<menu number> for help on that subject. Just keep pressing
<ENTER>for help on all subjects. <QUIT>to exit help.
==MA2SCR
```

Software Sculpting (ZF Evolution)

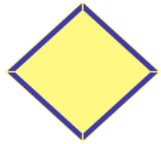


```
----- Scanning PDS: IOF.IOFT8GJ.HELP -----
COMMAND ==> _                                SCROLL ==> CURSOR

      S - IOF Browse      V - ISPF View      E - ISPF Edit
      Find - Member name or text      Next - Next unique member

-----Member---Act-Record Text-----
-      1  $@GLOBSS      For example, if the sysout data has ASA carriage control...
-      2  "              be transparently converted from ASA to machine as the da...
-      3  $@NEW7D      Spool data can contain both ASA and machine carriage con...
-      4  $@ZDSPDS      Carriage..... HTML  ASCII/ASA/NONE (map ASA/MCH ...
-      5  "              HTML/NONE          (map ASA/MCH ...
-      6  "              carriage control will be ASA.
-      7  "              Carriage..... HTML  ASCII/ASA/NONE (map ASA/MCH ...
-      8  "              HTML/NONE          (map ASA/MCH ...
-      9  "              disk data set will have ASA carriage control.
-      10 "              ...
```

Software Sculpting (ZF Evolution)



```
----- Scan Libraries using IOF ZF -----
COMMAND ==>                                     SCROLL ==> CURSOR
Any parms valid on a FIND ALL command:
  Find All ==> asa 25 60 word_
Library name (or select library from list below):
  Library ==>

S - Scan one or more libraries from the list below
C - Copy library name to prompt field (modify name to scan new library)
D - Remove library from list

-----Action---Previously Searched Libraries-----
-      1      IOF.IOFT8GJ.CLIST
-      2      IOF.IOFT8GJ.HELP
-      3      IOF.IOFT8GJ.INSTALL
-      4      IOF.IOFT8GJ.SOURCE
-      5
-      6
-      7
-      8
```

New JF Command

```

----- I8F Job List Menu -----( 80 )-----
COMMAND ==> exclude jobname nc en SCROLL ==> CURSOR
----- Output Jobs -----
----- JOBNAME JOBID ACT-STAT OWNER DEST/DEVICE RECS-HELD-DAY-TIME
-----
  9 M32COPY J836511 ISIJWO TRISYS.IOFT8GB 3546 283 10:01
 10 DOWNCUMF J836506 ISIJWO TRISYS 94 283 9:29
 11 DOWNCUMF J836505 ISIJWO TRISYS 94 283 9:26
 12 M32COPY J836446 ISIJWO TRISYS.IOFT8GJ 3546 282 11:20
 13 M32COPY J836432 ISIJWO TRISYS.IOFT8GJ 3546 282 10:59
 14 M32COPY J836386 ISIJWO TRISYS.IOFT8GJ 3546 281 16:44
 15 M10INIT J836384 ISIJWO TRISYS.IOFT8GB 1067 281 16:43
 16 M50DISKJ J836383 ISIJWO TRISYS.IOFT8GB 3391 281 16:41
 17 LINKSCRN J836373 ISIJWO FETCH 206 139 281 12:00
 18 SCREENINI J836317 8 ISIJWO TRISYS.SCREEN8E 2267 280 14:04
 19 LINKAPPC J835831 ISIJWO FETCH 235 139 272 11:44
 20 TEMPOBJS J835830 ISIJWO FETCH 1796 272 11:44
 21 LINKAPPC J835829 ISIJWO FETCH 235 139 272 11:31
 22 TEMPOBJS J835828 ISIJWO TRISYS.IOF8F 1796 272 11:27
 23 TEMPOBJS J835702 ISIJWO FETCH 1873 270 16:10
 24 LINKAPPC J835697 ISIJWO FETCH 235 139 270 13:50
  
```

New JF Command

```
----- IOF Job List Menu -----( 7 )-----
COMMAND === JF CORENV _ SCROLL ==> CURSOR
----- Output Jobs -----
-----JOBNAME--JOBID--ACT-STAT-OWNER--DEST/DEVICE-----RECS-HELD-DAY--TIME
-      1 SCRENINI J836317      8 ISIJWO TRISYS.SCREN8E      2267 280 14:04
-      2 SCRENINI J833916      8 ISIJWO TRISYS.IOF8C      2189 240 15:42
-      3 GENBROWZ J833713      ISIJWO FETCH      1014    236 14:55
-      4 MENUINIT J830410      ISIJWO FETCH      1745 178 17:14
-      5 ENVTSO   J827944      ISIJWO TRISYS.IOF8GFIX    1259    136 14:26
-      6 ENVMVS   J827940      ISIJWO FETCH      487 136 13:33
-      7 ENVTSO   J827938      ISIJWO TRISYS.IOF8F      1244 136 13:30
```


New JF Command

```

----- Matching Records -----
COMMAND ==>                                SCROLL ==> CURSOR

      S - Browse dataset      E - Edit job
      B - Browse entire job  J - Job Summary for job

-----Act-Jobname--Job-DDname--Step-----Text-----
-      1      SCREENINI      1  SYSPRINT  C      ... L      R15,CORENV      EN...
-      2      SCREENINI      1  SYSPRINT  C      CORENV      4 0000000C FFFFFFFFC ...
-      3      SCREENINI      2  SYSPRINT  C      ... L      R15,CORENV      EN...
-      4      SCREENINI      2  SYSPRINT  C      CORENV      4 0000000C FFFFFFFFC ...
-      5      MENUINIT      3  SYSPRINT  C      ... L      R15,CORENV-CORDSECT(R1...
-      6      MENUINIT      3  SYSPRINT  C      CORENV      4 0000000C FFFFFFFF ...
-      7      ENVTSO      4  SYSPRINT  C      ... L      R11,CORENV-CORDSECT(R1...
-      8      ENVTSO      4  SYSPRINT  C      ... L      R11,CORENV-CORDSECT(R1...
-      9      ENVTSO      4  SYSPRINT  C      CORENV      4 0000000C FFFFFFFF8 ...
-     10      ENVTSO      4  SYSIN      C      ... L      R11,CORENV-CORDSECT...
-     11      ENVTSO      4  SYSIN      C      ... L      R11,CORENV-CORDSECT...
-     12      ENVTSO      5  SYSPRINT  C      ... L      R11,CORENV-CORDSECT(R1...
-     13      ENVTSO      5  SYSPRINT  C      ... L      R11,CORENV-CORDSECT(R1...
-     14      ENVTSO      5  SYSPRINT  C      CORENV      4 0000000C FFFFFFFF9 ...
  
```

New JF Command

BROWSE - SYSPRINT				C	- Page 34	Line 17	Cols 1-80
COMMAND ==>							SCROLL ==> CURSOR
000874	58FF	000C		0000C	1215	L	R15,CORENV-CORDSECT(R15)
000878	58FF	006C		0006C	1216	L	R15,ENVAPL-ENVDSCT(R15)
00087C	BFFF	F0B4		000B4	1217	ICM	R15,B'1111',APLLOGWK-APLD
000880	4780	C890		00890	1218	BZ	TRACENO No
000884	41FF	0043		00043	1220	LA	R15,@TKMENU1-1(R15) Yes -
000888	95FF	F000	00000		1221	CLI	0(R15),X'FF' Welll,
00088C	4787	0004		00004	1222	BE	4(R7) Yes -
			00890		1224	TRACENO	
000890	9640	B014	00014		1225	EQU	* MNVFLAGS,MNVFTRCN Trace
000894	07F7				1226	OI	R7 And ta

New JF Command

Other JFx commands

- **JFI
JCL** **Scan only sysins and input**
- **JFD SYSPRINT
SYSPRINT** **Scan only DD name of**
- **JFM
JCL** **Scan only log, messages, &**
- **JFS 10000
than** **Scan only sysouts with less**
10K records